THE

VETERINARY JOURNAL

Editor :

FREDERICK HOBDAY, C.M.G., F.R.C.V.S., F.R.S.E.,
HONORARY VETERINARY SURGEON TO HIS MAJESTY THE KING;
MAJOR IN THE ROYAL ARMY VETERINARY CORPS.
HONORARY MEMBER OF THE AMERICAN VETERINARY MEDICAL ASSOCIATION.
CORRESPONDANT ÉTRANGER DE LA SOCIÉTÉ DE MEDECINE VÉTÉRINAIRE DU BRABANT (BELGIUM).

Sub-Editor :

GLADSTONE MAYALL, M.R.C.V.S.

OCTOBER, 1919.

Editorials.

THE MINISTRY OF HEALTH BILL IN IRELAND.

FURTHER progress in regard to the Ministry of Health Bill has been made by our colleagues in Ireland, where a Veterinary Representative has already been appointed to sit upon the Consultative Council and has taken a prominent part in the proceedings of the first meeting. On the summary, given upon a later page, of the remarks of the Chairman and some of the speakers, it will be seen that the importance of the collaboration of the medical and veterinary profession is fully recognised in the milk question and in the question of the diseases of animals transmissible to man; and, as the representative of the veterinary profession in Ireland, we shall look to Mr. Ewing Johnston to take full advantage of the opportunity which has been given and present to the Council a scheme whereby the value of the collaboration of the veterinary profession can be demonstrated to be of the utmost value and importance, especially in the question of the supplies of milk and meat.

THE first meeting of the Irish Public Health Consultative Council was held at Dublin on Thursday, the 2nd of October. Dr. Coey Bigger in the chair. The following members were present :—

Dr. Alice Barry, D.P.H., Mrs. MacMordie, C.B.E., Mrs. M. L. Dickie, Sir John Moore, Sir James Gallagher, Sir Joseph Glynn, Sir William Thompson, Messrs. Edmund Burke, C.B., J. Ewing Johnston, O.B.E., M.R.C.V.S., Drs. W. J. Maguire and R. J. Rowlette, the Rev. P. Kerlin, C.C., and Major Geo. A. Harris, D.S.O. (secretary).

Apologies for non-attendance were received from the Chief Secretary for Ireland, the Countess of Kenmore, and the Rt. Hon. Sir Henry A. Robinson. The Chairman, in his opening address, gave a brief outline of the objects of the Public Health Council, and stated that the Council had been formed with the intention that it should act as an advisory body to the Minister of Health on the steps to be taken for the improvement of the public health. It was a representative body of the different existing authorities charged with public health functions throughout the country, and the idea of the Minister of Health was to form with its aid a comprehensive scheme of public health to be incorporated in a Bill to be submitted to Parliament as soon as possible.

Had the health of the people been looked after as well as it should have been, we ought to have been able to put in the fighting ranks at least a million more men, a number which would have brought the war to a successful conclusion some considerable time earlier than it actually finished.

A population which deserved the term "healthy" ought to yield the following per 1,000 men : 700 Grade I, 200 Grade II, 75 Grade III (for sedentary work), and only 25 physically incapable. Many towns, however, in England and Scotland only produced 200 Grade I, 250 Grade II, 450 Grade III, and 100 Grade IV.

The objects upon which they were expected to advise were somewhat numerous and included the effective carrying out and co-ordination of measures conducive to health (including measures for the prevention and cure of diseases), the initiation and direction of research, the collection, publication and dissemination of information relating thereto and the training of persons for health services.

The fact that County Councils, although entrusted with health and medical administration, are not sanitary authorities within the meaning of the Public Health Acts has proved to be inconvenient ; and there is no power to appoint a County Medical Officer of Health for the general superintendence of health matters in the country. This defect can only be remedied by Act of Parliament.

The field of preventive medicine in Ireland is as yet almost unexplored. It is one of the most important branches, and has been too long neglected. One of the most important is in relation to the milk supply, which is at present far from satisfactory.

At the conclusion of Dr. Coey Bigger's address several of the members present expressed their views, the veterinary section being represented by Mr. Ewing Johnston, who assured Dr. Bigger of the willingness of the veterinary profession to collaborate in any scheme likely to benefit the public health. He pointed out the benefits which would accrue from a well-equipped veterinary section to control and

advise in all matters pertaining to animals and animal products, emphasising the necessity of combination with the medical authorities in order to eradicate the diseases of animals which are transmissible to man, and stating that in order to deal successfully with such matters one must have a Central Authority with uniform regulations to be enforced in a uniform manner.

"The various methods of the present day, inefficient, disjointed and irregular as they are, must be 'scrapped,' and all work of the nature suggested must be brought within the scope of the present ministry."

At the conclusion of Mr. Johnston's speech the Chairman thanked him on behalf of the Council for his valuable suggestions, and on the suggestion of Dr. Maguire it was agreed that Mr. Johnston should prepare for a future meeting of the Council a memorandum embodying in detail his proposals.

"SOME" ADVERTISEMENT.

In the advertising columns of one of our contemporaries, the following amusing appeal for a partnership has appeared. It is certainly a "sign of the times," and indicates either a swollen head or very great ignorance of the requirements and knowledge necessary to qualify in order to practice the science and art of veterinary medicines and surgery :—.

AS ASSISTANT.—Sgt. of the R.A.V.C. wishes, on demobilisation, employment with veterinary surgeon. Partnership would be considered. Credentials and experience forwarded on application. Address, etc.

The first part of the advertisement, in which the applicant asks for employment is quite legitimate, and for this kind of thing many of these men will be useful, but to aspire to a veterinary partnership seems the height of absurdity, even if the bye-laws of the Royal College in regard to "covering" were non-existent.

The veterinary sergeant never had, either in peace or in war time, any training which would fit him for treating any other than the most simple cases, and there only under the supervision of a veterinary officer.

The R.A.V.C. authorities have not the slightest inclination or wish to teach their non-commissioned officers anything which will fit them for entering into competition with civilian practitioners, and the idea that one of them (good fellows though most of them proved themselves during the past war) should suggest that a partnership "would be considered" is worthy of a picture to itself in the comic annals of the profession.

Original Communications.

ON THE OCCURRENCE OF *THRIPS SP.* IN SKIN SCRAPINGS OF HORSES

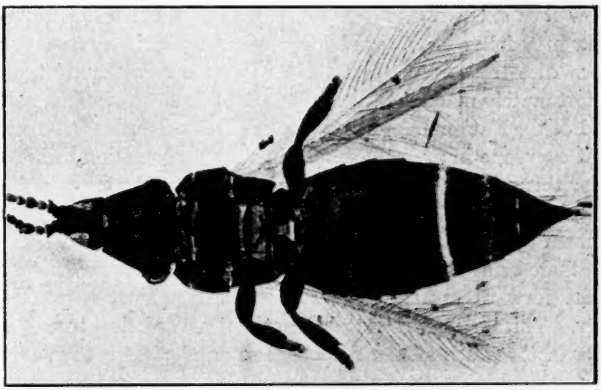
By A. W. NOEL PILLERS, F.R.C.V.S.

ELSEWHERE* I have given a short account of the presence in suspected mange scrapings of a well-known and usually non-parasitic mite; the present note deals with a very small insect belonging to the family Thripsidæ of the Natural Order Thysanophera. Such an insect cannot attract so much interest as an acarus resembling the mange mites. However, having come across it, or, more correctly, parts of it, on five occasions during one summer, I have prepared this short note and added a photograph of an adult female which had passed through the ordeal of the razor blade, potash solution and boiling. Prof. R. Newstead, F.R.S., who kindly examined the specimen, pronounced it to be a species of *Thrips*, most probably *T. cerealium*. There are a number of Thripsidæ attacking various crops, but the one under consideration is common in summer on growing grain and is thus likely to be found in the sweat or exudations of diseased skins of horses in the proximity of ripening corn. It is this insect which is often seen as a little black line on the perspiring hands and face, where it causes marked irritation by means of the great activity of its legs. Other species which are found in flowers often cause sneezing if they enter the nostrils, when the smelling process is vigorously carried out. If a deep skin scraping is taken by means of a Gillette safety razor blade, and then boiled in a 10% solution of caustic soda, only parts of the fly are likely to be seen. Twice I have come across the antennæ attached to part of the head; once a portion of the terminal segments of the abdomen, once a portion of a wing, and once the female which is here shown. From the photo one can see that parts of the antennæ, one wing, and three legs are missing, but a good idea of what isolated parts would look like if encountered in scrapings can be obtained. Curtice† thus describes the species:—"The perfect insect is smooth, shining, piceous often black, depressed and about three-fourths of a line long. The male is apterous, the female winged; the head is ovate truncate, concave on the crown, with a channel down the centre: ocelli three, distinct, forming a large triangle on the crown; eyes remote from the base, lateral and oval, coarsely granulated; the collar not contracted; antennæ inserted before the eyes, approximating, a little longer than the head, slightly bristly, nine jointed, two basal joints, the shortest oblong, the third and fourth rather longer, ovate

*Pillers "On the Occurrence of *Aleurobius farinae* (de Geer) in Skin Scrapings of Horses." *Veterinary Record*, Vol. XXXII, p. 22, July, 1919.

†Curtice "Farm Insects," p. 268.

with a gland at the apex appearing like a small joint; fifth obovate; sixth elongate ovate, truncated, the remainder tapering; seventh oblong; eighth minute; ninth twice as long, very slender, the apex pilose; face inclining obliquely beneath, terminated by the trophi, which unite to form a short beak close to the anterior coxæ; thorax somewhat quadrate, sometimes a little narrowed before, with four impressed dots, two on each side; scutellum short, somewhat lunate; abdomen narrow, long narrow and smooth, composed of nine segments; apex ovate or conical and bristly, the last segment armed with two lateral spines in the male; acuminated in the female ovipositor or borer four valved, incurved, compressed, concealed in the under side of the eighth and ninth segments; wings, four, as long as the



Micro-Photograph of *Thrips* (*cerealium* ?) found on the skin of a horse. Damaged female. Ventral aspect X 45.

body, narrow, horizontal, incumbent and parallel in repose, but curving outward and not meeting; superior rather coriaceous, fuscous, but pale at the base, ciliated with long hairs and having three longitudinal nervules; inferior a little shorter, membranous, transparent and iridescent, likewise ciliated; legs remote, anterior very short and stout in the female, hinder the longest, first pair of thighs thickened but compressed in the female; anterior libiæ straw coloured in the same sex with a protuberance on the inside and a curved claw at the apex; the others simple; tarsi very short, straw coloured bi-articulate, basal joint oblong, second short terminated by a little gland, claws none."

The species is also known as *T. physapus*. Apart from encountering this fly during microscopic examination it is probably not clinically important.

THE LIABILITIES OF VETERINARY SURGEONS ENGAGED IN PRIVATE PRACTICE.*

By HENRY B. EVE, M.R.C.V.S.,
Folkestone.

THE liabilities of a veterinary surgeon engaged in private practice are many, unfortunately, and no matter how careful one may be in endeavouring to steer clear of all accidents and litigious clients, sooner or later one finds oneself awkwardly placed and in a tight corner. A veterinary surgeon may or may not be able to extricate himself, or come off only second best, and have to face a county court judge for damages brought against him by a client for assumed wrongful treatment, or neglect of an animal placed under his care, and appear as a defendant.

Now it is extraordinary at times to find what quite unforeseen sequelæ may follow even simple procedure in veterinary practice and produce disastrous results. I have met with many in my time, but have fortunately managed to wriggle out of them up to date, without the aid of the National Veterinary Mutual Defence Association, which I suggest everyone in practice should join, as a protection to himself if only for this reason; for I contend that litigious clients could do very little indeed if they were unable to obtain professional evidence to back them up with their cases, which, unfortunately, is only too easy to get, there being so many veterinary surgeons, worse luck, ever ready to come forward and give expert evidence against a professional brother. This is a very regrettable fact, but nevertheless true. Again, another factor which aids and abets the cranky client is the veterinary surgeon, the shining expert who openly boasts that no accident or unforeseen incidents ever occur in his large practice. Now I maintain that a practitioner is only legally expected to be possessed of ordinary skill and powers of observation, *i.e.*, the skill he can be expected to bring to bear on his patient, a dumb animal, and the opinion I hold is that no man, however smart he may be or thinks he is, is "infallible" in either his diagnosis or treatment. He simply does his best, and what more can he do? If he fails to cure his patient or give satisfaction to his client, well, in the generality of cases that is his misfortune, certainly not his fault. In order to succeed in an action for negligence, the plaintiff must prove beyond all reasonable doubt to the satisfaction of the judge or jury, as the case may be, that the V.S. attending either did something which he ought not to have done, or omitted to do something which he ought to have done, and was negligent and failed to take all reasonable care in the performance of his duties. This is the view usually taken by the judge in finding an adverse

* Read at the S.E.V.M.A. Meeting at Maidstone, September 18th, 1919.

verdict. I have endeavoured to group the headings of liabilities roughly as follows :—

Headings.—An accident happening during the procedure of—

(1) The examination of horses as to soundness.

(2) The performance of operations and accidents arising from casting, etc.

(3) Employment of anæsthetics (local and general).

(4) Liability in connection with the medical treatment of a case (*e.g.*, wrong treatment or neglect to visit often enough, through long distance ; *e.g.*, colt after castration).

(5) The administration of medicines :

a. Accidents arising from balling.

b. Accidents arising from drenching.

c. Accidents arising from hyp. injection (intravenous).

d. Errors due to an assistant giving wrong medicine ; unqualified man sent.

(6) Untoward results from counter-irritation :

a. Blistering.

b. Firing.

c. Action of a purgative.

d. Venesection.

(7) Liability of veterinary surgeons who keep shoeing forges (pricking results or maltreatment of animal, difficult to shoe, by attendant).

(8) Opinion as to pregnancy in cows, etc.

(9) Opinion asked as to date of death of calf or foal by insurance companies.

(10) Inspection of racehorses at meetings (opinion asked by stewards as to being doped or not ; inspection of animals at markets for effects of lightning (giving certificates).

Giving Police Certificates under the Injured Animals Act (*Street Accidents*), 1911.

Animals (Notification of Disease) Order 1910, omitting to notify disease to Inspector of the Local Authority.

The danger and pitfalls of "hasty diagnosis" of fractures and hopeless cases of spinal injury (apparent), broken back, etc.

(11) Certifying cattle free from tuberculosis for exportation.

(12) Opinion asked as to the presence of foreign bodies in the bovine reticulum.

(13) Opinion asked as to animals, horses, cattle, sheep, swine, being affected with rabies.

(14) Omitting to give a dose of Anti-Tet. Serum when treating a wound, and tetanus resulting.

(15) The escape of a dog from an infirmary or in quarantine, failing to get a licence from owners to produce for inspection of police or inland revenue officers. Claim for dog's carcase after death, body removed to public destructor, or buried ere notifying owner.

(16) Failing to detect the presence of a retained Placenta, especially in the mare.

(17) Failing to diagnose anthrax, sheep scab, foot and mouth disease, parasitic mange, glanders, epizootic-lymphangitis, contagious abortion, sheep-pox, dourine, contagious venereal tumours in stud dogs.

(18) Omitting to examine for the vermiform appendix being present or not in pedigree rams for exportation.

A. *Examination as to Soundness.*

Horse injured slipping up in the street when riding, afraid of traffic ; omitting to auscultate, take pulse, temperature. Failing to notice certain defects at the time of examination (nasal gleet, odd feet, seedy toe, incipient navicular, ringbone, splints, quidding, coughing, poll evil, scars, spavins, coarse hocks, curbs, stringhalt), not removing shoes and corns present, and lameness results ; sandcrack, covered up and missed, shivering, crib-biting and windsucking, weaving, grunting, whistling, thick winded, broken-winded, been faked and not discovered until too late, especially defective eyesight (heart disease), deafness, paralysis of the tail or rectum. Neurectomy, especially Median, having been performed.

P. *Performance of Operations.*

Casting and securing animal for castration, fracture, broken back, rupture of heart or diaphragm, radial paralysis resulting, latter due to animal being kept a long time down with head bent round, thereby causing undue shoulder pressure on the radial nerve plexus.

Rupture of the Œsophagus from passing probang standing in the horse or cow. Make sure that no amateur has had a try first and done the trick ere your arrival, and you get the blame.

ANÆSTHETICS : General.

Employing same, omitting to examine heart ere giving, and a condition of status lymphaticus being present and patient dies ; the above conditions not being diagnosable during life, and only discovered at P.M. (local). Injection of cocaine for diagnosis of lameness, operations. Poisoning and fracture results.

Medical Administrations :

(*a*) *Accidents from Balling*, animal struggles against delivery and ball gets crossed in upper part of gullet, and causes distress bordering on choking.

(*b*) Accidents from Drenching (pneumonia results and death).

(*c*) Accidents from Hyp. Inj. needle breaking, abscesses forming, and pyæmias resulting from non-aseptic precautions.

(*d*) Untoward results from counter-irritation, blistering, firing action of purgative ball.

Counter Irritation :

Blistering. Cantharides poisoning, blood poisoning, hysteria, tetanus resulting.

Firing too deep and sloughing of the skin result.

Purgative, super-purgation, enteritis and laminitis resulting.

Venesection. Phlebitis, entrance of air into the vein, causing death, producing syncope, thrombus, embolism of the pulmonary artery, or gaseous embolism of the cerebral arteries. Toxic dose 8 litres. Danger limit, 1 litre.

Opinion as to Pregnancy.

Veterinary surgeons are often consulted and asked to give their opinion whether an animal is pregnant or not, which is often extremely difficult to determine, unless the animal is in an advanced state. Often the usual procedure adopted, abdominal palpitation, touch and sight, auscultation, rectal and vaginal exploration, exercise and draught of cold water give no clue satisfactory. Some authorities assert that a cow pregnant has a short tight cough which is diagnostic (Thompson Aspatria), and which disappears only when it calves. However, a cough may arise through reflex action from the presence of parasites in the stomach or liver, and from irritation of the womb during the process of irrigation after removal of stinking placenta ; if water be a little *too* hot, when pumped in, animal coughs at once, but is more pronounced even when cold water is injected.

Method of Determining.

The *Live Stock Journal* is quoted in the German and Italian veterinary journals as giving a new method, viz., a drop of milk from the animal under consideration is dropped from a clean straw into a tumbler of water ; then if the cow is *not* in calf the milk at once mixes with the water, with a flocculent cloudiness ; whereas if pregnant the drop falls to the bottom of the glass with *hardly* any mixing. This method may be new to Europe, but is practised in India, and has been for ages, and is so empirically correct that in cases of dispute, when rejecting pregnant animals produced for slaughter, butchers regard it as a practical test in doubtful cases, and refuse to buy.

Agglutination of the blood corpuscles as a sign of pregnancy is stated to be diagnostic in the *Journal of American Medical Association,* April 15th, 1918, by medical practitioners in the case of pregnant women. It states that citrated blood from pregnant women showed a

much more pronounced and more rapid sedimentation of the red corpuscles than the citrated blood of *non*-pregnant women. Sedimentation proceeds abnormally fast in the blood of the pregnant, and the stability of the suspension of blood corpuscles is more pronounced in man than in women, and the stability is materially reduced in pregnancy. This test may prove a useful aid to us in diagnosis of difficult cases, and seems worthy of a trial.

Twitching of Vulva Pathognomic of Fœtal death. U.S.A.T.V. Medicine?

It is a common occurrence to be called in to attend cows heavy in calf and presenting symptoms of a doubtful character. These cases in cows are always important from the standpoint of their affecting the reputation of the attending veterinary surgeon, as any error in diagnosis and wrong treatment usually results in disaster for the vet., even if not for the cow. A variety of pathological conditions within the uterus present very complex symptoms, and it requires considerable experience to classify them correctly. There is, however, one symptom in this class of cases which is said to be almost absolutely reliable and can generally be depended on, viz., the rapid, sometimes "Chorea-like twitching of the vulva" when the fœtus is dead and begins to undergo degenerative changes, while the "Os Uteri" is closed when accompanied by fever, anorexia and other usual symptoms. This sign is doubly valuable as an aid to diagnosis, because usually a putrid fœtus is retained and only rarely expelled spontaneously at the end of the gestation period. All practitioners recognise the gravity of this condition. It must, of course, be understood that it could be of no value and has no bearing on cases of fœtal death at the close of gestation resulting from dystokia—only when it dies and degenerates while Os Uteri is closed.

Opinion as to date of death of calf or foal for insurance claim (*U.S.A.*)

(*a*) Examine the cornea; if it is transparent and cannot be depressed by the finger, indicates death within 24 hours.

(*b*) If cornea has lost its transparency and is easily depressed and has white opaque patches on its surface, it indicates that it has been dead several days.

(*c*) If cornea is opaque all over, it has been dead quite eight days.

Tuberculin Test: Pasteur v. *British.*

The reason why some clients for exportation demand using Pasteur and not accepting British, and liability of the veterinary surgeon who gives certificate *free from tuberculosis* and found to react in Buenos Aires when re-tested on arrival, and animal returned to seller.

Skin Tuberculin Test:

Prof. Vallée, of Alfort, has communicated to the Academy of Science results of experiments of tuberculin administered on scarified

skin. He says if the scarification is as deep as possible without fetching blood, the reaction is intense, and appears like a warty tubercle and lasts from ten to twenty days; moreover, that cattle will react again if a few weeks intervene between the operation, and that the subcutaneous injection of tuberculin a few days previously does not prevent a reaction, for in five bullocks which gave a marked reaction the test had previously reacted well.

Intradermal U.S.A.

Injection made with a medium-sized sterilised needle under the skin surface; 3 or 4 drops gives a reaction; a hard, painful swelling which persists from 5-10 days, even sometimes extends to upper surface of tail. If swelling is a septic infection, is a soft one; extends along the tail and passes away sooner. A *positive* reaction reaches its height on the *third* day.

Veterinary Inspection at Open Markets.

Some difficulties in the diagnosis of disease in animals in open markets are well known to those employed on such missions, and may be divided into two sections:

(1) Inspection under the Diseases of Animals Acts, and the various Orders made by the Board of Agriculture.

(2) The inspection of such for the protection of public health in the prevention of the sale of diseased animals for the food of man.

Under the first heading the veterinary surgeon is appointed to inspect a market, usually chiefly for pigs, with a view to detection of swine fever, and nothing further is done. This applies to the majority of markets, and the Diseases of Animals Acts do *not* make it compulsory for a local Authority to have a veterinary surgeon present at the live stock market.

(2) "Isn't it *infra dig.*" to have to be appointed an Inspector of Nuisances in order to be able to inspect carcases?

The Methods of Diagnosis in Live Markets are Limited:

One has to rely on sight and touch; percussion and auscultation are not practicable. However, a knowledge of the districts from which the animals come, and the diseases most frequently met with in animals from these districts, plays a very considerable part in one's success or otherwise in diagnosis.

The Common Diseases met with:

Tuberculosis, Johne's, actinomycosis, and parasitic conditions, Mange, Sheep Scab, etc.

Remarks:

In view of the Tuberculosis Order I suggest as important the definition of emaciated animals exposed for sale, and "neat" and

store cattle in a public market. I maintain that veterinary inspectors should have the power to detain for examination any animal which appears diseased or unwell, and these animals should be placed in properly equipped lairs and kept at the Local Authority's expense until a complete examination is made. I also hold that it is desirable to have a sesparate market for fat and store cattle in the interests of all concerned.

The Vagaries of Lightning Stroke :

Symptoms :—If not killed instantaneously, animal appears dazed, unable to lift its head off ground, eyes are bloodshot, prominent, and head is swollen ; monoplegia, paraplegia or total paralysis present. Sometimes permanent blindness results Often there are no external marks present, and we may have to rely on the history of the case, viz., a vivid storm having been known to have taken place in the vicinity. There may be an odour of singeing noticeable on approaching animal, which is generally found in a peculiar posture, sheep kneeling on one leg as if grazing, or on their backs. " Rigor Mortis " vagaries are possibly explained by the supposition that the body is charged with *negative* electricity at one time and *positive* at another.

Postmortem Lesions :—Lesions vary according to the intensity and direction of the current that strikes the animal. The changes in cadaver are engorgement of " venous system " with dark fluid blood, non-coagulation, except blood clots present in heart at times, incomplete " Rigor Mortis," rapid decomposition of carcase, Ecchymosis present in the internal organs ; microscopical examination of blood shows the red corpuscles with crenated edges, while the colouring matter, hæmoglobin, is dissolved, giving the cell a very pale aspect. There is a visible dearth of white cells. Microscopical examination of nerve tissue may show hæmorrages, destruction or degeneration. Regurgitation of food as witnessed by the nasal discharge of ingesta, and occasionally rectal hæmorrhage is noticeable.

How to Detect Doping in Race horses :

The chief feature is variation in the usual health of a horse, and the symptoms vary according to the dope used and veterinarian's knowledge of the drug used, actions, *e.g.*, morphia, heroin, chloral, cocaine, strychnine, aconite, arsenic, gelseminum. The veterinary surgeon must rely to a great extent on his powers of observation, and be as alert as he can in detecting the true cause. The practitioner should never be rash in giving an opinion that the patient has been doped or poisoned. A sterilised swab may be taken of the saliva as an aid to diagnosis, and await results of analysis.

"Doping" and the Researches of Messrs. "Bru & Roberts" and Dr. Luigi Orlando (French V.S., and Italian V.S.)

Drugs Used.—Heroin, morphia, cocaine.

Methods of Administration.—Hypodermic, oral and rectal; the former is usually the method employed, as it is more easily done, and acts more rapidly.

Effects.—These drugs which affect the nervous system all work much in the same way. They begin by increasing and end by paralysing the activity of particular nerve-centres. Each of these phases is long or short according to the dose given and the kind of animal under treatment. The first effect is stimulation, then depression. Hypodermic injections can only be depended on to work for a specified time. If the dose is too strong, marked depression and dynamia sooner or later ensue. Oral and rectal absorption is slower and more variable, being dependent on the emptiness of the "intestines" at the time.

Heroin and Morphia.—Through repeated experiments an expert doper knows the exact dose to give, which the horse can profitably carry. This varies greatly with individual animals. The administration can be timed to a nicety for the duration of the race, and to last out the public appearance of the horse. Afterwards, when the reaction sets in, the privacy of the stable sees the poor animal's collapse. He refuses all food, drinks only water, heart beats only feebly, and pulse is imperceptible. The appetite remains capricious, often for four days after the symptoms abate.

Symptoms (overdose).—The action is automatic, the gaze is fixed, tail raised, muscles are contracted, hyperæsthesia is very evident; the ordinary sounds of the stable are sufficient to awaken uncontrollable reflex manifestations, salivary secretion is diminished, mouth is *dry* although drink is refused. At the point of injection "*local sweating*" is noticed, which "*persists.*" This betrays the fact of doping having been practised. The horse's automatic, violent, blind gallop, tells its own tale and aids diagnosis.

Antidote.—Purgative and sedative pilocarpine (hyp. inj.); pilocarpine is also an effective antidote for rabid saliva, as proved by experiment of Remlinger.

Cocaine.—This drug is much used; however, its effects are more transient, and its administration therefore demands even more exactitude than heroin or morphia, as the injection can only be depended on to work for a specified time.

Symptoms.—Great flow of saliva, sweating, first localised at the point of injection, dilated pupils, hyper-excitability noticeable even at a distance when approaching the animal.

Overdose.—Ears pricked, licking of the lips, mouth filled with frothy fluid; voluntary muscles become violently convulsed in fits, and animal falls down. The limbs and jaws are most affected. Horse sometimes stamps so violently as to fracture the "phalanges" where there is "ostitis" present.

Saliva Testing.—Frode's testing preparation reveals the presence of heroin and morphia, whereas Fareira da Silva's reagent detects cocaine. The saliva tests employed by Kaufman, an Austrian, are kept secret, lest they should be counteracted, and have been adopted in France and Italy.

Cocaine antidote.—Pot. bromide, morphia (hyp. inj.).

Acting as hon. Veterinary Surgeon at Horse Shows.—My own view is that a veterinary surgeon acting in an official capacity at a local show is, more likely to derive harm than not. I contend that all veterinary inspectors should be well paid men, *not* in private practice in the neighbourhood of the show at any rate; then if they reject an animal competing for the Shire Horse Society, hunter or hackney medal, the vet's. unfavourable decision is quite immaterial, and he can put up with the owner's wrath, and need not fear the consequences.

Dog Shows.—Certificates on "trimmed dogs," asked for by an exhibitor. I contend that a veterinary surgeon should decline to give one, as it is *not* a veterinary surgeon's point at all, but one for the judge to decide. In my opinion disease and age of dog only concerns us, not faking in any manner.

Gentlemen, I will now leave the matter with you. I trust that we shall have a good discussion. I am quite aware of the weakness of my remarks, and I thank you for the kind way in which they have been received. If they lead to a good debate I shall be delighted, and whatever faults of omission I may have made I now leave for some of you to fill the gaps.

EXPERIENCES AS A PRISONER OF WAR IN GERMANY.

By Lieut. R. F. FRANCIS.
Veterinary Accountant, London.

I have been asked to give my experiences as a prisoner of war in Germany. To do so, I think it better to begin from the time when I became wounded. It was on March 22nd, 1918, at Bullecourt, somewhere about six o'clock in the evening that the German forces delivered their onslaught on our lines. All day and night on the 21st and up to the above-mentioned time of the 22nd we had had a most trying time—fighting had been continual without a break, and the number of casualties was alarming. During the afternoon of the

22nd I personally counted thirty-two German 'planes over our lines, quite a dozen of which were bombing our trenches, which at that time were only eighteen inches in depth, and our artillery had received orders to retire. The Germans engulfed us ! Bullecourt at that time was a salient. The enemy attacked our front in mass formation and both left and right flanks gave, and at the last moment we were attacked in the rear. Our men fought well, each knowng what the end must be, for we were vastly outnumbered—indeed, so much so, that in a report sent to the War Office, I illustrated the position by stating that if one observed a crowd round an orator in Hyde Park on a Sunday afternoon, and would then imagine the crowd to be the enemy and the orator ourselves, it would best answer the question as to the strength of both sides,—and I still think this ; moreover, our men were tired and hungry. In my company, which was sadly reduced, I have not yet found a man who was not either killed, wounded, or taken prisoner. At the critical moment I received a bad wound in the throat from a hand grenade—this knocked me out—and another struck my left hand. The enemy passed over us, and that evening they reached Ervilliers, a distance of nearly two miles from Bullecourt. That night I laid out in the open. Twice I was turned over by Germans and my pockets rifled, and later a German Red Cross bandaged my throat. Just before dawn on the 23rd I endeavoured to crawl back through the enemy lines to our own lines, but found this task impossible. I passed one German line—apparently a reserve line—but ran into hundreds of the enemy at Mory (a village between Bullecourt and Ervilliers) and was taken back again. I spent some hours in a sunken road at an advanced dressing station near Norieul. At this place there were some hundreds of German wounded lying in rows of four all along the road, whilst there was quite a number of British there, too. At this time I formed the opinion that both German and British were being treated more or less the same, but I also noticed that the very badly German wounded—men who would be no further use, even if they did recover—seemed to be left quite unattended. I also saw some unwounded British prisoners, under a German sergeant, collecting German dead, and piling the bodies in heaps—for what reason I cannot say.

Later that evening some of the wounded, including myself, were taken further back to the entraining station. This was a weary journey taking four or five hours, without food. Here we were placed in cattle-trucks, forty to a truck, and sent to Mons.

Mons Station has six large platforms and quite a number of sidings. Each were filled with trains full of German wounded, whilst it was difficult to move among the enemy's wounded lying on the platforms.

LIBRARY ALABAMA ... STITUTE

We British were taken to an old monastery, where we stayed six days. This place was filthy to the extreme—the sanitary arrangements were indescribable, and the food awful—just soup, morning and evening. Each day added to the number being sent here, until the place was so overcrowded that wounded men were lying in the courtyard, in the cellars, and on the stairs leading to the cellars—all suffering agonies, hungry and uncared for. Let me say that the Belgian population tried to show their sympathy in every way possible—one could see by the little acts of kindness and also by the kindly facial expression of sympathy, that these people would have given much to have welcomed and cared for us—but it was impossible, for if a Belgian spoke, he (or she) was kicked aside and cuffed. On the Good Friday we started for Germany, in cattle-trucks forty to forty-five in a truck. This journey took four days and nights. We had soup in the morning and again at night, and we were locked in. There were no sanitary arrangements whatever. The stench from our wounds was bad enough. Many fainted again and again, and nine men had died on this journey by the time we finally reached Langensalza. This place is a large Prisoner of War Camp holding thousands. Here we were placed in a ward with Russians, Italians, and French—the former, we were told, were dying of consumption, and I can truthfully say that they certainly looked like it. This ward was vile and dirty, the beds were full of vermin, and, of course, food was as bad as before. However, Langensalza was so overcrowded that three days later some 150 of us were sent by train to Ohrdruf in Thüringen. We found our quarters here were just a part of a disused training camp. Here we were stripped, everything we possessed—clothes included—were taken from us. We were given a kind of bath, and put to bed, and told that we were to undergo fourteen days' *quarantine*. Yet, at this time, even when we were at Mons, there were both officers and men who needed urgent amputations, and these operations were delayed so long that many died through sheer neglect and callousness. At this moment I can recall to mind four brother officers who *could* and *should* be in England alive and well if proper attention had been given them—but they lie buried at Ohrdruf! The food question here, too, was very bad for three months, indeed, it seemed as if we should really die from starvation, but luckily our parcels arrived from England just in the nick of time. Many wounded men had vermin crawling from their wounds. Wounds that should have been dressed once or twice a day were neglected and imperfectly attended to in lapses of ten days apart. At last, in June, some thirty-five officers left Ohrdruf to entrain for Rastatt (in Baden Baden), a clearing camp for officers. The following is quite true, although it may seem hardly to be credited.

With an armed guard on each side of us, we marched through Ohrdruf singing, "Britons never shall be slaves" and "Rule Britannia." The German people simply stared. From the barbed wire enfencing at Ohrdruf we had often seen drafts of Germans being "played" to the station before entraining for the front, wives, sweethearts and children hanging on to the soldiers, and the band used to play an awful mournful and dismal tune. We heard from time to time that there was much trouble in getting them to entrain, and I believe this to be true.

Passing through Berlin, we reached Rastatt in two days. We stayed here in huts for a further fortnight. We had lost touch with our parcels again, and the food question was very acute—being soup and sour rye bread. Later, 200 of us were sent to Stralsund, in Prussia. Here we were placed in a camp on the island of Danholm, and this became our home for many a long, dreary month. We were behind barbed wire fences in the centre of the island and very little indeed could be seen. The food here was even worse than before—filthy and bad. A wholesome potato was unknown, yet sixty marks per month was deducted from each officer's pay and paid over to the German authorities for our food. I consider this should be repaid to us, and included in the indemnity to be paid by Germany. At this period I think the chief thing that worried us was the fact that we had lost sight of our parcels; it took nearly six weeks for them to catch us up, and then most of them had been opened and pillaged. This, later, was quite a usual occurrence, so that we had to go back to starvation dietary again for the six weeks. We started a very excellent school, also a good theatrical and concert party. Divine Service was held on week-days and Sundays. We also derived much amusement from watching the Germans training and doing the "goose" step (they used to do this just outside our wire, where they had a training ground).

It was practically impossible to escape from Danholm. The sentries were placed every fifty yards, loaded rifle and bayonet, *inside* the wire. There were two ten-feet high barbed wire fences, five feet apart, running round the camp. Outside there were German patrols always prowling about, and a motor patrol boat was cruising round day and night. In the evenings large hounds were brought from the mainland (only a few hundred yards away) in case of any attempt at escape And it was winter time.

At the time of the revolution in Germany it was expected that there would be trouble. The German commandant at our camp was deposed and a sergeant took over control. The commandant, however, came back to power after taking the oath of allegiance to the new republic. When the Armistice was signed on November 11th,

it was expected that some of the more stringent restrictions would be abolished. This was not the case, however, and much friction arose between the Germans and ourselves. Stralsund at the time was full of young German soldiers just returned from the front, and it became a usual occurrence for live shots to be fired into our camp, and many a shot came through the hut where I slept. Our guards were changed; formerly they consisted of the old Landswehr, but now they were men just returned from France. The Germans became abusive and offensive until on December 7th, whilst two British officers were taking a walk after dinner about 8.30 p.m., one was shot dead and the other badly wounded for no apparent reason whatever. Certainly it was that they were doing no wrong and not attempting to escape, and, as so often happens, these unfortunate officers were two of the most inoffensive members of the whole camp. The sentry who fired the shots, of course, could not be found, the commandant declaring that he had no control over the men. The senior British officer took the matter in hand and has ample evidence of the outrage, and the Germans responsible are, I understand, to be punished by the Allies.

After this affairs became so bad that every effort was made to get us away. The camp was broken up into parties, each party being taken away under armed guards between two and three o'clock in the morning to Denmark.

NOTES ON AN EPHEMERAL FEVER OF INDIAN CATTLE RESEMBLING SOUTH AFRICAN "THREE DAYS SICKNESS."

By Captain D. MEADOWS, I.A.R.O., R.A.V.C.
Indian Civil Veterinary Department.

This disease, which may provisionally be called "Vil," from one of its common vernacular names, appears to have attracted very little attention, and it is doubtful if it has yet been recognised (except by the Indian peasants) as a specific disease.

The only reference I have been able to find concerning the occurrence in India of ephemeral fever in cattle is in the section on "Dengue," in Wallis Hoare's "System of Veterinary Medicine." I enquired from the author about the references, and he informed me that they were from French sources and that the French word "L'Inde" occurring in them might mean either India or the Indies. The dates of these references were previous to 1906, when Edmonds in South Africa recognised "Stiff Sickness" or "Three Days Fever" as a specific disease. I enquired from Bevan, the Government Veterinary Bacteriologist in Rhodesia, if he considered that the Indian and African diseases were the same and he replied that he thought they probably were.

Distribution.—Up to the present I have only seen and heard of "Vil" in the North West Frontier Province and the Northern Punjab; but, from the similarity of the climatic and geographical conditions, it is probable that it occurs all over North West India and the adjoining countries. I believe that this disease is quite common, but it is not possible to give any accurate idea of the extent of its prevalence, as no place has ever been given to it in any statistical schedule Vil is usually mistaken for other disease, and its outbreaks are frequently not reported. I have seen cases of Vil at an altitude of nearly 6,000 feet. It is commonest during, or shortly after, the rainy season (July to October).

Aetiology.—The causal organism is not yet known (the South African disease is inoculable). The fact that outbreaks occur in widely separated localities at the same time and are seasonal indicates that the disease is insect-borne. The peasants consider that Vil is caused by eating certain caterpillars and pupæ, which are found surrounded by froth attached to grass stalks.

Animals susceptible.—I have only seen this disease in cattle and have not heard of it attacking other animals.

Symptoms and Course.—The commencement is very sudden. An animal may be left quite all right and found a few hours later with high fever and showing all symptoms. The temperature rises to 104 to 107 F. The first temperature reading is nearly always the highest, as there is seldom any opportunity to take the temperature during the very short period when it is rising. The temperature falls regularly to normal before the fourth day. The body is stiff, some animals lying down obstinately and refusing to rise, and others standing with their backs arched and heads extended. There is lameness in one or more limbs. This often moves from one limb to another in a very short time. There are the usual symptoms of fever-quickened pulse and respiration, loss of appetite and cessation of rumination. There is usually difficulty in swallowing. All these symptoms decrease at the same rate, as the temperature and recovery is usually complete before the fourth day. Constipation is usually present, but there may be diarrhœa at the commencement. Usually only a small proportion—one-fifth or much less—of the animals in a herd are attacked. I have not yet noticed any local symptoms (such as swellings), but further observation may find them.

Lesions.—I have never seen a post mortem of a case of Vil.

Terminations and Sequels.—Under normal conditions, with rest, shade, water and soft fodder and an absence of extremes of heat and cold, deaths are very rare; and it is probable that most of the deaths that do occur are not due to the disease, but to native treatment; likewise pneumonia, enteritis, etc., following an attack.

Treatment.—No safe or efficient drug treatment is known. The animal must be rested and protected from heat, cold or rain and offered water and soft food. Constipation should be treated by enemas, avoiding drenching. Any other treatment should be symptomatic, and it is much safer to give drugs subcutaneously or per annum than per Os.

Immunity.—Nothing is known about this.

General remarks.—The common vernacular names in Punjabi are Vil or Bilho (as far as I can ascertain these words are meaningless) and Charmekh (meaning "four pegs") and in Pushto Charmekh or Oochwali (the latter word means "dryness").

Further investigations on this disease would be of considerable scientific interest, but of little economic importance, as the losses and inconveniences caused by Vil are slight. It is possible that an outbreak in a bullock convoy might cause temporary dislocation of work, as many bullocks might have to be left behind at stages or even on the road.

A better general knowledge and recognition of Vil would be of great assistance in differential diagnosis and would prevent many false alarms. Vil is often mistaken for more serious diseases, as its symptoms somewhat resemble those seen at the commencement of cases of Black Quarter, and the seasonal prevalence of these diseases is about the same. It is often mistaken for Black Quarter, and on account of diarrhœa and high fever at the commencement it is often mistaken for Rinderpest. Statistics compiled in India regarding contagious diseases of cattle would also be rendered more accurate.

NYCTALOPIA OR NIGHT BLINDNESS IN HORSES.

By MAJOR D. MEADOWS, R.A.V.C., D.A.D.V.S.,
Eastern Persian Cordon.

As far as I am aware, this condition has not previously been described in veterinary literature. I would like to draw the attention of veterinary officers—especially those new to the tropics—to its occurrence in animals.

It is of great military importance, as its presence in a severe degree makes animals useless and dangerous for night operations. It is well known in human medicine and is known or believed to be due to exhaustion of the sensibility to light of the retina from prolonged exposure to sun glare or to want of nervous tone from debility or anæmia. In animals it can easily be ascribed for the former cause, and it is possible that it may occur from the latter cause.

I have seen the condition in different troops of a cavalry regiment stationed in different localities in a wide area of operations, and noted that the amount of it present was inversely proportional to the amount

of shade available. I was also informed of nearly all the horses in another regiment in the same expedition before my arrival having become affected. That regiment was stationed for months in a shadeless place.

In the regiment which came under my notice one troop was particularly badly affected. It had been in a shadeless place for months. Nearly all the horses were affected, and some were so bad that they had trouble in getting along even on a bright moonlight night, but none appeared to have any difficulty in seeing their way in ordinary daylight. All the horses were in strong fit working condition, and colour or age did not appear to make any difference.

It was not possible to provide shade in this place, so I recommended the horses being provided with dark coloured cloth masks to wear during the daylight when not at work or exercise; I am awaiting a report about the result.

It remains to be seen whether the condition is curable or not, but it appears certain that there can be no hope of improvement until the cause is removed and further trouble prevented.

The condition cannot be detected in an ordinary examination for soundness, but it appears advisable to give horses and mules a test at night whenever possible—especially when they are purchased in desert countries, and to provide masks for horses and mules which have to work in shadeless places.

Camels are occasionally affected, but rarely, as the eye of the camel is provided with a much more efficient arrangement for protecting the retina against glare than the eye of equines.

Clinical Cases.

CASE OF TETANUS IN A DOG

By ARTHUR PAYNE, F.R.C.V.S.,
Weybridge.

On the morning of August 7th I was asked to attend a black cocker Spaniel—eighteen months old.

Upon my arrival I was told that the dog had been stiff for some days and unable to eat unless the food was held up to his nose—then he had a difficulty in moving the jaws and in swallowing.

As the patient came into the room I noticed that the head was extended, the tail out straight in line with the body, and he was unable to bend the body to turn round.

On closer examination I found all the muscles of the body more or less in a condition of tonic spasms. The nostrils were dilated, respiration markedly increased, eyes more prominent than normal, and he was

only able to open the jaws slightly—slight hyperæsthesia. There was increased spasm of the muscles on the slightest noise.

After moving around the room in an aimless way the dog attempted to lie down, and after several attempts he went down on his chest with the hind legs extended.

A few hours later I injected 100 units of Burroughs and Wellcome's anti tetanic serum.

The following morning the course of the disease had advanced to an alarming extent. I found the animal on his side showing marked opisthotinos, the legs outstretched and muscles contracting spasmodically, the eyes almost bulging from the orbit; extreme hyperæsthesia and reflex irritability were very noticeable at the slightest sound or movement. The skin of the head was wrinkled and the ears almost meeting. The angles of the mouth were drawn back, showing the mucus membrane. The respirations were increased to the rate of a machine gun.

I waited sufficient time to notice these symptoms and then advised the owner to allow me to destroy the dog—which was carried out then and there with chloroform and prussic acid.

There was conclusive evidence to show that the dog injured his right forefoot, as he was lame for a few days about a week before I saw him.

The servants and owner could not agree as to the exact date, but they had noticed lameness and the presence of blood. I was unable to find the seat of injury or any signs of the dog having suffered from interdigital abscesses.

A SEVERE CASE OF POST-PARTUM HÆMORRHAGE IN A COW SUCCESSFULLY TREATED BY ADRENALIN CHLORIDE.

By Captain J. F. D. TUTT, M.R.C.V.S., F.R.M.S., F.Z.S.
Winchester.

Subject.—Shorthorn cow—seventh calving.

History.—The cow was due to calve in a day or two, and rode another cow in the herd, and shortly afterwards started calving.

On examination an anterior presentation with one fore leg and the head back was discovered and rectified with comparative ease and the live fœtus delivered. About five minutes afterwards the cow started straining and voided an enormous quantity of blood. An attempt was made to remove the placental membranes, but as this only intensified the straining and voiding of blood, I injected an ounce of Adrenalin Chloride (Parke, Davis & Co.) into the uterus and gave an Opiate with Oss of whisky.

The straining and hæmorrhage ceased almost at once, and she shortly afterwards ate up a bran mash. At 10 a.m. on the following day, in response to an urgent message, I again saw her and found her down grinding her teeth, cold extremities, straining, with slight hæmorrhage.

The placental membranes were then removed and the uterus douched out with ʒiii of Perchloride of Iron in 4 pints of cold water, and one ounce of Adrenalin Chloride was again injected into the uterus. I inflated the udder with oxygen, as in cases of Milk Fever, and gave an opiate. At 2 p.m. she was up and feeding, but at 7 p.m. was down again (hurried respirations, slight hæmorrhage, and straining, temperature 105°). Another injection of Adrenalin was made, and a drench containing 5 ounces of Turpentine in 3 pints of milk (in which 3 eggs had been beaten up) was given. I saw her again at 9 a.m. the following day, to find her up and much better, but staggering in her gait, so I gave a hypodermic injection of Strychnine (1½ grains) and prescribed ʒss doses of Chlorodyne (Hewlett) every 4 hours with ʒv. of whiskey. At 7 p.m. the temperature was 103°; at 9 a.m. 103.8 and it gradually declined to 101.4 and then went up to 102.4°, in which neighbourhood it remained, and the cow made an excellent recovery.

LUXATION OF THE ELBOW JOINT.

By E. MORGAN, M.R.C.V.S., D.V.H.,
Puerto Cabello.

Subject.—A 13 hands pony about 4 years old.

History.—This pony was ridden under saddle at the time of the accident by a young man attending sheep, and whilst rushing down the slope of a steep mountain the pony lost control of her feet and slipped headlong along the smooth surface. She was brought home with difficulty on three legs, as she could not touch the ground with her near fore leg. The owner's brother, a well-known medical practitioner of 40 years' standing in the district (and, obviously, in a mining district had often to deal with dislocations and fractures among the miners) happened to be there when the pony arrived; he diagnosed the case as dislocation, and attempted to replace the dislocated joint, but found that it was not so easy as he had anticipated. He left the case in this abnormal position and advised his brother to call me to attend the case. I was unable to visit the place until the third day after the accident, and then was rather reluctant to go, as I thought it might be a fracture, besides being a case of three days' standing during the warm weather of the month of July. However, I had to go. I found the pony standing on three legs with the near fore leg fixed outwards at an angle of 45 degrees from its normal

position, and the hoof was several inches from the ground. The limb was quite rigid, as if held in a vice. There was a certain amount of swelling round the joint, but not to such an extent as I had anticipated in my mind. Close by there was the fore limb of a sheep, *i.e.*, the bones, ligaments and parts of tendons. Apparently the animal had been sacrificed in order to study a little anatomy of the elbow joint; not by any means a bad idea. I commenced manipulating the limb of the pony, but could not detect any crepitations, and found that the olecranon process of the ulna was not in the olecranon fossa, but on the inner side of the condyle of the humerus, and that the proximal extremity of the radius was displaced, but could not satisfy myself that it had gone entirely over and to the inner side of the distal end of the humerus, but was twisted. I commenced manipulating the limb whilst the animal was standing, but owing to pain the animal dropped down and sweat broke out all over her body to such an extent that manipulation was done with difficulty. Unfortunately, I had no chloroform nor pulley with me, two things most essential, as they would have eased matters for myself and the pony. After pulling and twisting the leg I could not get the olecranon process to slip back behind the inner condyle of the humerus. I then fixed a rope above the knee and another above the hoof, and placed a pole, about two yards long, on the inner side of the elbow joint, *i.e.* in the axilla, and had two men, one at each rope, pulling steadily outwards and slightly forwards and downwards. Also two men, one at each end of the pole-pressing it against the displaced joint, while I was manipulating the parts around the joint; the pony was lying prostrate on the floor with the injured limb above. The bones slipped back to their normal position with a snap which made me think at first that we had caused the ulna to fracture. We then assisted the pony up on her feet, and now the limb appeared more natural than artificial. In spite of the tension of the muscles, I could extend and flex the joint to a slight degree, sufficient to satisfy myself that the bones were in their normal position. I placed a bandage round the part, and smeared it with pitch so as to support the limb and assist to return it in position for a few days.

I called in a week's time, and found the pony in a small paddock, and although lame, as one would have expected, yet she was able to move about with so much ease that I was unable to catch her, and she was putting a good deal of weight on the limb. The pony in five weeks' time could move the limb with almost as much freedom as the others, and in a few months' time I saw her being worked under saddle as before the accident.

After such a long delay, I report this case for the benefit of students, because I noticed the other day in Moller and Dollar's book on Regional Surgery, that although they quote cases of luxation of the elbow joint, yet they say that the statements require confirmation.

Remarks.—In dealing with dislocations in horses and cattle I think we should make more use than is done of chloroform, and also of the pulley, not only on account of the anæsthetic action of chloroform, but also its action on the muscles, because they become relaxed, which one finds of great advantage. A small pulley is far more convenient than having men pretending to pull, as they are apt to relax the rope when one is on the point of replacing the bones; not so with a pulley. It is surprising to some the amount of traction one can apply to a dislocated joint with favourable results. If the dislocation should be in one of the proximal joints, such as one of the joints above the knee or the hock, it is advisable, for obvious reasons, to hitch the rope of the pulley high up.

TWO CASES OF COCCIDIOSIS IN YOUNG STOCK.

By ARTHUR PAYNE, F.R.C.V.S.,
Weybridge.

A FEW weeks back I read a very interesting clinical article on Coccidiosis in Young Stock.

On the 29th ult. I was requested by a client to call and see two heifers—a Jersey and a Shorthorn.

They had been turned out in low-lying pasture, and the cowman had that same morning noticed them standing away from the remainder, straining and passing liquid motions and blood, and had forthwith brought them up and placed them under cover.

I found the flooring of the building to be covered with liquid fœcal matter, blood and blood-stained mucus, and the animals standing with arched backs and continually straining, with sphinctors dilated, and I decided to treat under the assumption that I was dealing with coccidiosis; and, as the farm was some miles from my house, I called at the local chemist's and prescribed Dover's Powder, with doses, etc., as suggested in the clinical article mentioned.

Two days later I called again, this time accompanied by my microscope, which clearly demonstrated the case to be due to coccidia, as numerous parasites in various stages were seen on every preparation. My client was duly impressed when I showed him the parasites.

As the animals were no better, I increased the dose and called again after two days. The Shorthorn's appetite was decidedly better, but she was still purging and passing blood and mucus, but not straining

so much. No change in the Jersey, who was showing symptoms of impending abortion.

I decided now to change the treatment and prescribed:—

Tr. opii.....	3iv	Morning and evening.
Tr. catechu ..	3iv	
Ac. carbolic ..	3i	
Glycerine ..	q.s.	
Aquae	Oi	

On the 4th inst. the Shorthorn was decidedly better; motions were firmer, with blood and mucus occasionally, and her appetite was good.

The Jersey was also better as far as the original symptoms were concerned, but the placentæ were hanging from the vagina, and I could see she would abort during the day. Her appetite was very poor and she looked very ill and had fallen away considerably in condition.

Two days later this heifer developed pneumonia, which I suspected was caused by the medicine passing down the trachea; she was in a good deal of pain, had fallen away to a skeleton, and in my opinion would only live a matter of twenty four hours. I advised the owner to have her destroyed.

The Shorthorn made a good recovery.

A FRACTURED FEMUR.

By J. EWING JOHNSTON, M.R.C.V.S.,
Belfast.
AND FREDERICK HOBDAY, F.R.C.V.S.,
London.

THE subject was a six-year-old hunter, apparently in excellent condition, which had been cast for the "roaring" operation. Ropes were used in the usual manner, with a leather collar and metal side loops, the hind legs being drawn tightly up and fixed so that it seemed impossible for the animal to struggle. The horse had been on the ground on its left side for about three minutes, and the throat was being shaved —chloroform had not yet been given—when it made one mighty effort to struggle. A peculiar suppressed crack was heard, and the right hind leg was observed to drop and become limp in the muscular region over the thigh. Palpation revealed a fracture of the shaft of the femur, the crepitation being quite distinct.

Although this fracture is well-known as one of those which may occur when a horse is cast, actual cases of its occurrence have not been recorded frequently, and it is always worth while for practitioners to be reminded that this danger does admittedly exist, in order that a querulous client may, if necessary, have this added beforehand to the list of risks involved in casting.

The question has been raised as to whether an animal tightly tied up is more liable to this accident than one in which the ropes allow some

play. Opinions vary very much on this, and appear about equally divided. Each of us have seen thousands of horses of all ages and sizes cast and secured by ropes or hobbles, one of us (J.E.J.) has never seen the accident before and the other (F.H.) has only seen it happen twice. In one of these two cases the subject, a colt, being cast for castration was barely down on the ground and was only loosely secured, the fracture sounding at the time like a pistol shot going off.

THREE INTERESTING DOG CASES.

By G. MAYALL, M.R.C.V.S.,
Bolton.

Case I.—An Irish terrier, "Mickie," had been off his food for a day or two and then began running slightly at the nose and breathing quickly. He was brought to the infirmary, and on examination had a temperature of 105° F. He was given some fever medicine and in two or three days his temperature declined to normal and he was eating and drinking fairly well. After a week's treatment he seemed in normal health but his owner wished him to remain a further week. At the end of this week he was found dead in the kennel in the morning, although being quite lively and cheerful the evening before. P.M. revealed a ruptured spleen with a very large amount of clotted blood adherent to it. A big cystic angioma as large as a regulation sized cricket ball was attached to the spleen, and was filled with clotted blood supported by a small amount of fibrous tissue. The tumour, clotted blood, and spleen (not intact in substance) together weighed 1 lb. 13½ ozs.

Remarks.—The growth and lesion were not suspected during life and clinically seemed undeterminable. The tumour appeared to have been present for a long time, and the blood present seemed to have clotted as it escaped slowly from the spleen. There did not appear to be any marked blanching of the mucous membranes. Clinicians state that there are no symptoms which indicate the presence of tumours in the spleen, but they do say that rupture of the spleen may be suspected from collapse and blanched membranes.

Case II.—A smooth-coated fox-terrier dog, "Peter," has been the subject of heart attacks for the last nine months. He rolls over on his side and lies prostrate for some, time and then gradually recovers under the influence of doses of sal-volatile—The owner has had many bottles of medicine for him from me and the attacks do not seem to become more frequent. On Sept. 10 he was left in charge of my locum, with the warning that he was subject to these attacks. On my first day home (Sept. 14) he was found lying prostrate in the kennel with rather dilated pupils (cerebral anæmia), but quite able to respond by his looks to the call of his name. We gave him sal-volatile and brandy, and in time

he showed signs of reviving, but did not get up and walk dazedly about until we had given him a good smell of a broken amyl nitrite capsule. The prostration lasted for about 20 minutes. The complaint is probably due to mitral disease with aortic and mitral regurgitation. Although the dog has been treated by the owner for a long time and the symptoms faithfully described to me, until Sept. 10 I never actually saw him in an attack

Case III.—A Schipperke dog sent in for keep while the owner was on holiday was found dead in the kennel after a fortnight's residence. During this time he seemed quite lively and fit and well. On p.m. we found a bladder brim full of urine with evidence of hypertrophy of the prostrate gland. The kidneys showed old-standing lesions of nephritis, and there was an ante-mortem clot of blood in the aorta. The left kidney was atrophied and weighed 40 grains; the right kidney showed fibroid change and weighed 1 drachm. The post-mortem was made by Major Murray-Jones.

PNEUMONIA IN THE DOG.

By G. MAYALL, M.R.C.V.S.
Bolton.

CASES that I have had of pneumonia in the dog have been chiefly distinguished by their fatal ending. I fancy I can count the recoveries on the fingers of both hands. In industrial towns where the atmosphere is damp and charged with impurities of a mechanical and noxious vapour-like nature one is greatly handicapped in securing any favourable environment. I am inclined to think that during an epidemic of influenza in man, which is often characterised by a sudden and alarming attack of what appears to be pure pneumonia, that the dog, too, may occasionally suffer in ths same way. Here we have had many cases of quick arising and rapidly fatal cases of pneumonia in human beings, and at the same time I have noticed a more than usual occurrence of similar cases in the dog. I am recording the present case, because either by good luck or good management I secured a complete recovery, and because I used a different medication from any I have ever used before. I would like to point out that the clinical symptoms in this case were rapid breathing, a quick rise of temperature, great prostration on discharge of any kind from nose or eyes, complete loss of appetite for a time, a rare and occasional suppressed cough, very little to be heard by auscultation except what I took to be tubal breathing, marked constipation.

The patient was a valuable white Aberdeen terrier dog "Kittie," about seven years old. The prescription used during the whole of the

attack until convalescence was established at the end of about 10 days was as follows:—

Spr. Ammon Aromat., 3 drachms.
Spr. Aether., 2 drachms.
Tr. Digitalis, 30 minims.
Moschi, 15 grains.
Vin. Ipecac., 1½ drachms.
Tr. Cinchonæ ad. 3 ounces.

Dose.—A teaspoonful every 4 hours in water.

The prescription is an old one, and perhaps the ingredient 'Moschi," will be unknown to many modern men. It is the preputial secretion of musk animals (*e.g.* the musk cat). The smell of the medicine is not unpleasant and lingers about the dog's domicile for quite a time after giving a dose. I acknowledge that the prescription is rather an expensive one and in most cases will have to be made up at a good chemist's; but a live dog is better than a dead policeman, and anyway it did excellently in this case. We bottled some beef tea and milk in small quantities into the dog and gave him, besides, 2 or 3 teaspoonfuls of medicinal paraffin. We kept him warm and dry, and at the end of a week he began to take milk and beef tea of his own accord. We secured as good and sweet a supply of air as this polluted atmosphere will allow and at no time was any counter-irritative applied to the chest wall, nor was a jacket put on the dog. He was very ill indeed, and seldom have I seen a dog so bad make a good recovery. He is now quite lively, eats well, barks joyfully, and when the sun shines appears to appreciate all the canine *joie de vive*. Perhaps an animal secretion such as musk suits animals better than human beings and may be more beneficial in their case and have more therapeutical value.

THE COUNTRY VET.

By P. J. Austin, F.R.C.V.S.
Pembury, Tunbridge Wells.

(*With apologies to Mr. Kipling.*)

I.

As me and my mate were going home to bed from the stores where we left our load,
We met a bloke with his cob and cart a-driving adown the road;
He had only one light, but it shone quite bright, so I axed Bill who he be,
And he sez, "That's the surgen, the veter'n'y surgen, for he gets about late," sez he.

" He's going maybe to somebody's gee that's got the bellyache,
Or a cow that's calved, or a beast gone queer or got ripped hisself on a stake—
And sometimes he goes to see sheep, he does, and sometimes cats and dogs ;
Or a farmer might ask, or fetch him in, to make out what's wrong with his hogs.
He's always willing to go when he's took, be it springtime or autumn fogs."

II.

And some weeks passed till we seen him again ; 'twus at races near the town.
He was trying to see if no bones were bruke of a chaser that fell down,
And the crowd looked on, and a big toff stood to hear what he'd got to say,
If the hoss would ever be right again to lep some other day—
And the squire he knows him, too, he does,when he needs a pair so trim,
For the right ould kuntry sort is he—no motor-cars for him ;
And the parson and the doctor and sich give him work to do,
Though they often keep him waiting months for his hard-earned, honest screw ;
'Cos he's only the surgen, the veter'n'y surgen, who can't ask for his brass like you.

III.

And we seen him again with needles and thread, and scizzers and things and sich,
A wagun wur banged by an autocar, and the hoss had got chucked in the ditch.
Though the blood run down, he sowed him up as neat as you could a sack,
And he gave him a bottle of good ould ale to brighten his journey back.
You say he gets paid ! Yes, a tanner a mile for his car fare, do you see ?
And a dollar the job—" Well, I'm darned if it's fair "—that's what Bill sez to me.
For that's what the County Councils pay to buy rashers and cheese and bread,
Though he wears good togs for appearance' sake from his feet till the crown of his head,
And planks down half a "Brad" for the football club as well as the parson's spread.

IV.

And we seen him once more when the Boche broke loose and Flanders was aflame,
At Potijze and Armentieres 'round Monchy and Chemin Dame.
When the five-point nines and the woolly bears played Ould Nick on the roads,
And the transport mules and the gunners' teams were scattered with their loads.
He was writing out chits for the M.V.S. of sich as wur fit to keep,
And moving some to a shell-hole near to go west on their last long sleep.
Though he ran more risks than them blue-tabbed blokes or know-alls at the base,
With their cushy billets and Badminton and their eyewash round the place.
He played the game and he did his part with a smile upon his face.

V.

Now them special-eyed blokes what live in big towns get much more praise, 'tis true,
They go swanking around in a motor-car, which they might be ashamed to do—
And their new-fangled ways with some new-named dizase, their toxins and serums and test,
And their microscope work with methylene blue and camouflage stains and the rest;
Now what I'd like to know is what good could they do to a hoss with the gripes mighty queer,
Or a cow with the drop, or a whelp with the shakes, or a gun-dog with cankered ear?
As for me and ould Bill and a lot of our friends, though we may have our queer kuntry notions,
When our cows or our nags are not right on their legs, or are not quite free in their motions.
We'll stick to the surgen, the ould kuntry surgen, with his white oils and drenches and lotions.

Translation.

ZEBU CATTLE.

By E. MORGAN, M.R.C.V.S., D.V.H.
Puerto Cabello.

The Zebu (Bos Judicus) is the sacred cow of India, familiar to us in childhood in Geographical History and greatly loved by the Hindoos. It is extensively met with in India as well as in the North of Africa and is notable for its large and pendant ears and fleshy prominence or

hump. The history of these cattle can be traced back for thousands of years. These animals received the attention of the great scientist Darwin, who not only held they were of distinct origin, but from their habits, manner of lowing, constitution, and important ostrologic tendencies considered they were a distinct species of cattle. Notwithstanding this the descendants from a cross between the Zebu and ordinary cattle remain quite fecund. From experiemnts with plants and animals it has been considered that the results of first crosses and mongrels remain sterile as is the case with the mule; but we cannot consider this universal in our day.

Since 1853, Zebus have been imported from India to the United States; when the American first commenced trading in these animals his life was in danger. To-day the business can only only be carried on through an influential British official who obtains a permit from a Rajah that the cow may be sent to America on condition that it is used solely for breeding purposes. To kill a sacred cow is a sacrilege among the Hindoos. Zebus have been exported plentifully to the British colonies. Since the date above mentioned Zebus have on many occasions been exported into the South American States and a large consignment has gone to Mexico where crossing with the old native breed of cattle as well as with certain English breeds of cattle, such as Herefords and Shorthorns has given good results. It is a universal belief of breeders and plant growers that crossing between different varieties or between individuals and the introduction of outside blood gives vigour and fecundity to the descendants. As we have said that the Zebu differs from other cattle physically by the possession of a hump, an attribute common also by the camel, and the yak and the runting oxen of Tartary (Poephagus gruniens). The large pendant ears give proof that the animals have been domesticated in the past for many years. The ears fall owing to disuse of the muscles which are needed by animals in their wild state. We believe that the hump is there because the Zebu has struggled for centuries against hunger; at intervals, however, good creditious fat is provided and stored up in the hump to be used in times of hunger and scarcity.

It is not merely that these animals have a history of thousands of years, a sufficient proof that they can survive years of barrenness and scarcity. Zebus are ideal herds of cattle for a vast extent of country on the plains of Venezuela where they travel large distances in a short time in search of food; surviving in hot climates in good condition during months of hardship, when other breeds under like conditions die. They are practically immune from Texas fever which have ravaged the cattle in certain districts and killed them by thousands. This disease is due to the presence in the blood corpuscles of a small

microbe called Piroplas ma Bigeminum which is transmitted by a tick called Boophilus Bovis. This malady is known in South America as " La Tristeza." It is rare that one encounters the tick or its descendants in the Zebu. Mosquitos do not molest the animal ; one reason for its healthiness. The skin of the Zebu is harder than the skin of English breeds of cattle ; its uniform hardness and the iromatic odour which transpires through its pores hinders the attack of all classes of insects. Cows of this race arriving at the depot at Puerto Cabello are free from ticks and more healthy than other cattle in lla respects. Most of the fat cattle arriving here which have been crossed by the Zebu appear to have Hereford blood in them. For meat purposes a cross between the Zebu and the Hereford gives excellent results. Whilst the Zebu has defects in one or other points such as flat ribs, the Hereford is vice-versa and corrects the faults and the resulting cross is most satisfactory. The Zebu is prolific and regularly gives birth to healthy calves. A cross between the Zebu and other breeds such as Shorthorn, Holstein, Red-Poll or Angus is very satisfactory. Some people hold the view that the quality of the flesh of the Zebu is not all that one could desire ; personally I consider that if a difference exists it is insignificant in the breeds produced by a cross with the Zebu. It is true that the form of the head of cattle produced lacks the improvement seen in the Angus, Hereford or Shorthorn in a public market such as that at Smithfield or Chicago or New York, undoubtedly other breeds fetch higher prices. In reality I am obliged to give preference to those animals which generally come to Puerto Cabello in the best condition, and for obvious reasons a fat beast is better than a lean one, moreover in a well formed beast there is an equal share of flesh in proportion to the weight of the carcase. The Zebu possesses a great advantage over the Hereford and other races for whilst supporting the heat of the summer season it is not subject to its infirmities nor to molestation by ticks which produce plagues in other countries, not only by the malady that these parasites transmit to other animals but by the quantity of blood which is extracted directly from every animal. Imagine the quantity which thousands of these parasites can extract from a head of cattle, the quantity of food which the latter must ingest before returning to their former natural state of fatness.

The result of a cross between the Zebu and the Hereford or Angus or other breeds gives a storng healthy beast especially fit to live in the tropics. The disadvantages are the injuries that are occasioned by its wildness and the difficulty of dealing with them on the plains.

The Venezuelan Times.—

G.M.

Abtracts.

THE PRESENT STATUS OF SPECIFIC TREATMENT FOR CONTAGIOUS ABORTION.*

By H. PRESTON HOSKINS, V.M.D.
Detroit, Michigan, U.S.A.

It is now over twenty years since Bang announced the discovery of the causative organism of contagious abortion of cattle. The identity of the organism responsible for the same disease in this country, with that of the European organism, was established by MacNeal and Kerr, in Illinois, in 1910. These discoveries stimulated many investigators to attack the problem of finding some remedy or agent for the prevention or cure of the disease. Naturally the search for such an agent was in two directions, *viz.*, medicinal and biologic. This paper will deal only with the latter, although it might be stated, in passing, that up to the present time anything in the way of a chemotherapeutic agent of real merit is much of the nature of a chimera.

The fact that the behaviour of contagious abortion in a given herd, when not interfered with by the hand of man, suggests that a rather high degree of immunity is established after a succession of abortions, has led to experiments to produce such an immunity artificially. The agents used have been products prepared from cultures of the abortion organism, almost without exception. Most of the work on which reports are available has been done with killed culture of B. abortus, so-called abortion bacterins and vaccines.

Various methods have been used in the preparation of these vaccines. The dosages recommended by the purveyors of these products show extreme variations, from what appears to be a rather low dosage to what is considered a high dosage (from 85 billion to 1000 billion organisms). The number of injections advised is equally inconsistent, some advocating three, some four and some six treatments. The intervals between injections show the same wide variation. In fact, the practitioner can at present choose just about what he wants to suit his own convenience in the matter, or his preferences, if he has any. If he has to take into consideration the size of his bill, or his client's pocketbook, he can select anything from a course of treatment costing 75 cents. to one costing $2.00 per animal. To the best of our knowledge there is no publication available which gives directions for varying the dosage or the intervals between injections to meet local or individual conditions. Further, it might very properly be argued that the very reason why there is such a wide variation in the matter of

* Abstract of a paper read before the South Eastern Michigan Veterinary Medical Association, Detroit, Michigan, January 8, 1919.

recommended dosages is because none of the dosages employed has given uniformly good results.

At the recent meeting of the United States Live Stock Sanitary Association, held in Chicago in December, Dr. Williams very severely criticised certain biological manufacturers for continuing to market contagious abortion vaccines in the face of the practical unanimity of opinion of competent authorities to the effect that such products were just about worthless. "No-cure-no-pay" propositions of various concerns came in for their share of censure at the hands of Dr. Williams, as well as the misleading advertisements of others. A great deal of credit was and should be given Dr. Williams for his courage in taking the stand he did. The evidence available certainly justifies his attitude.

For the purpose of getting the consensus of expressed opinion of various authorities on the value of contagious abortion vaccines, the writer has examined all recent reports and publications available. Care has been used to select only the most recent of these papers and reports for abstracting opinion, so that the resumé can be said to consist only of the very latest and up-to-date ideas on the subject.

The conclusions arrived at are as follows :—

1. The consensus of opinion, as expressed by recognised authorities, is to the effect that vaccines and bacterins made from dead abortion bacilli are of no real value in the prevention, cure or control of the disease.

2. Such preparations are probably harmless, in so far as any danger to the treated animals is concerned, but they may possess a potential danger by causing veterinarians to overlook other methods for handling the disease.

3. If veterinarians wish to make and preserve a reputation for being careful observers, scientific workers and ethical practitioners they should keep in mind the nature of this abortion disease and its sequelæ, treat it accordingly and endeavour to interpret results intelligently, at all times holding themselves aloof from any connection with the so-called "no-cure-no-pay" propositions.

4. Experiments with vaccines consisting of living organisms are apparently more encouraging, according to the work thus far reported. If a stable product can be prepared, for use under actual conditions, and a safe method of distribution and administration devised, the product may prove to be of considerable value in the control of the disease.

5. The use of anti-abortion serum is rather limited, owing to the nature of the disease. Theoretically, its employment in certain conditions is perfectly rational, if the value of the cow or her progeny warrants the expense.

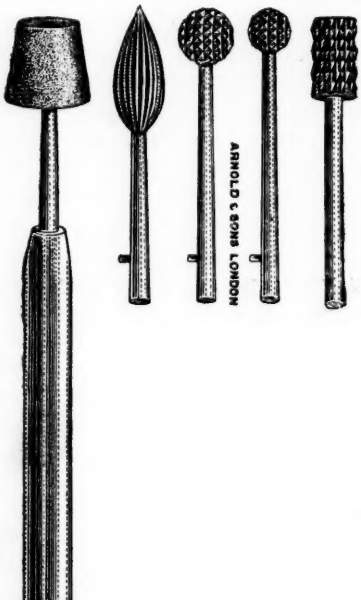
6. Some clinical observations would suggest that the colon organism is more important, the common diseases of the new-born calf, than B. abortus, even though the latter is found in some cases of scours, pneumonia, arthritis, etc.

7. Our problem may be further complicated if the researches of Dr. Theobald Smith are confirmed and it is shown that there are two organisms, instead of one, responsible for the abortions so prevalent among our cattle.—(*Journal of the American Veterinary Medical Association, March,* 1919).

New Appliances.

NEW FOOT-BURRS OR DRILLS.

SUGGESTED BY CHARLES ROBERTS, M.R.C.V.S.,
Tunbridge Wells.



SEVERAL varieties and shapes of steel burrs or drills (resembling, except in size, those used by dentists for excavating carious teeth), and one of emery-stone are made to fit into a holder which is actuated by means of the mechanical horse-clipping machine now used in most stables.

They are useful for exploring the foot, for removing the diseased horn in "seedy toe," for drilling through the sole in cases of suppurations from pricks, corns, etc., and cutting the wall away in quittor operations.

The trephining instrument with its accompanying gimlet can be modified for use in the same holder.

The instruments are manufactured by Messrs. Arnold & Sons, Giltspur Street, London, E.C.

NEW EMBRYOTOMY KNIFE.

SUGGESTED BY CHARLES ROBERTS, M.R.C.V.S.,
Tunbridge Wells.

THE end of the blade is blunt and flattened transversely, somewhat resembling a duck's back in shape. It is inserted under the skin at the fetlock through a small opening previously made with an ordinary pocket-knife, and is pushed upward to the external scapular area. The skin along its track is thus severed in a few seconds.

A guard which is attached to the knife by means of two small

screws prevents injury to other structures, and renders it one of the safest instruments I have used for this work. The muscles and tendons in the axillary region can also be easily cut by forcing them between the knife and its guard.

The instrument is manufactured by Messrs. Arnold & Sons, Giltspur Street, London, E.C.

NEW VULVA SUTURES.

SUGGESTED BY CHARLES ROBERTS, M.R.C.V.S.,
Tunbridge Wells.

THE figures show a vulva suture which is easy to insert and is very effective. It is composed of a stout aluminium wire with a small aluminium ball screwed on to it at each end. For inserting, one ball is removed and replaced by a steel trocar. When it has been passed through the labia the trocar is removed and the ball reapplied. The trocar is bored transversely so that an ordinary pin or small nail may be passed through it to facilitate screwing and unscrewing.

I have used this instrument for transfixing the skin in operations for umbilical (and other) hernia. It is easy to apply and to keep in position. Its advantages, in several ways, over the old-fashioned meat-skewer are apparent.

The instruments are manufactured by Messrs. Arnold & Sons, Giltspur Street, London, E.C.

Personal.

By the death of Mr. Peter Bond, at the age of 67, the Western Counties loses one of its best known sporting men, and the veterinary profession one of its most esteemed and oldest members. Commencing life as a chemist's assistant in London, he saved sufficient money to pay his college fees, in order to gratify his ambition to become a qualified veterinary surgeon. At college he had a distinguished career, obtaining the Cattle Pathology Silver Medal of the Royal Agricultural Society and the first Fitzwygram prize in 1886. He then commenced practice in Plymouth and speedily made an extensive practice in South Devon, and last Cornwall, obtaining the inspectorship of the district, under the Board of Agriculture, a position which he held until his death.

He did a great deal at his own cost to promote horse-breeding in the district, and as a much respected member of the Plymouth Institution, he was acknowledged as one of the best authorities upon the folk lore and general history of the people of the South Hams, a district in which he had been bred and born and which he knew thoroughly.

His genial manner had made him a welcome colleague and his presence at the National and Western Counties' Veterinary Medical Association will be sadly missed.

Congratulations to Lieut. C. W. W. Park, of the Royal Air Force, on the honour of the decoration of the Croix de Guerre. Lieut. Park is a member of the Royal College of Veterinary Surgeons, and was before the war a canine practitioner in the south-west of London.

Mr. J. Ewing Johnston, M.B.E., M.R.C.V.S., the popular President of the North of Ireland V. M. A. has been selected as the Veterinary Representative to act on the Irish Public Health Council under the new Ministry of Health Act.

Correspondence.

To the Editor of The Veterinary Journal.

Sir,—The case described by Mr. G. Gair, of Conan Bridge, in the September issue of the Journal under the heading "Quarter Ill in Heifer," interested me much. It is not with the intention of offering captious criticism, but with a view of eliciting information that I venture a few remarks.

Mr. Gair does not state that his diagnosis was a bacteriological one, but rather, one infers, that it was based on the clinical features. Of course, if one had isolated the specific organism of Quarter Ill in the case the diagnosis would remain clear and not one to be questioned. In

the *Veterinary News* for March, 1914, there is recorded a series of cases having exactly the same features as the one described by Mr. Gair, and this particular form of gangrene is further alluded to in the VETERINARY JOURNAL, February, 1919, pp. 64.-5. That a definite form of gas gangrene does occur in the backs of adult cattle seems probable. I have seen a series of such cases, but have never met with a similar condition affecting other parts such as the Quarters, neck, etc. All of my cases have recovered except one, and here old standing disease of the liver was found post-mortem, but I have never seen such extensive destruction of tissues end in recovery in " Black Quarter."

It appears to me that the condition is more probably due to the invasion of the tissues with the organism of Welch (B. perfringens) or some allied organism rather than the specific germ of Quarter Ill. It is only after seeing a number of these cases, extending over a long series of years, that this conclusion has been arrived at. At any rate, this particular form of gangrene is so constant in its clinical features, course, and termination as to merit a special description. It would, I think, be wrong to conclude that in every instance in which gas due to organisms is present in the tissues in cattle, particularly in adults, that the case is necessarily one of Quarter Ill. It would be well in cases like the above to get a bacteriological diagnosis.

I am, yours truly,
F. T. HARVEY.

Review.

BOARD OF AGRICULTURE AND FISHERIES. Annual Report of the Chief Veterinary Officer for 1918. Published by H.M. Stationery Office. Price 3d. net.

Only one outbreak of Foot and Mouth Disease is recorded for the year. This was notified by Mr. Ripley, M.R.C.V.S., of Hurst Green, Sussex, and occurred at Burwash, in East Sussex. The outbreak was promptly controlled and stamped out. Its origin was not discovered, which is not surprising considering the numerous and varied animal agents that may act as carriers of infection. One noteworthy point was that infection was taken from the original disease centre to an " off-farm " by the movement of a cow and calf, or by the boy who drove the cow and calf.

A considerable advancement was made in the time occupied in diagnosing rabies, as now it can be definitely stated whether or not the disease exists within five hours after receipt of material instead of in 14-30 days, as was formerly the case. Most of the cases of rabies were fortunately of the dumb type, which limited its spread, and the dogs that ran and bit all travelled in a westerly direction and soon came up to the sea barrier. Twenty-one people were treated after being bitten and no deaths were recorded. When efficient control and muzzling came into full force there was a marked drop in the cases of rabies. On January 11th, 1919, taken as the end of a monthly period, there were only five cases in the whole of Cornwall and Devonshire. In the month ending October 19th, 1918, 51 cases

were confirmed. The period of incubation in the dog was 24 to 85 days, and in cattle from 22 to 84 days.

As usual, the reported cases of swine fever were far in excess of the outbreaks verified. Only 1,407 outbreaks were confirmed out of a total of 10,203 notified. There is room for a nearer approach to better recognition of the symptoms of swine fever among those owning pigs. The results of the serum treatment of swine fever were quite good.

Glanders was chiefly limited to the London area.

Imported feeding stuffs, and the use of artificial manure of animal origin were the two chief causes of anthrax outbreaks, but the numbee of cases of anthrax showed a remarkable drop, and was due to thr restriction on the import of these foreign materials. Several cases of anthrax got to the slaughterhouses or the butchers before they were discovered, and in most of them the animals had been bled, fined and dressed, thus furnishing facilities for infection of man, and as a matter of fact three human beings did develop anthrax in these circumstances.

Sheep scab in England decreased considerably, chiefly due to notification and double dipping of Scotch sheep.

There were 4,483 outbreaks of mange, chiefly of the psoroptic type, and 8,422 animals were affected. The cases were easily dealt with. We question whether the total represents all the cases of mange that have occurred in the country, and if as much energy was exhibited in reporting cases of mange as in notifying suspected swine fever cases, the total might be much larger. The 48 hours for carters, meaning poor cleaning of horses, and frequently no cleaning of harness, and the fact that perhaps more than half the stables of the country are now becoming more or less derelict, makes the lookout for the decrease of mange cases a not very hopeful one. Has anyone noticed an increase of lice cases in horses? The Report is one of the most gratifying ones that has ever been published. G. M.

NOTICES.

All communications should be addressed to 8, Henrietta Street, Covent Garden, London, W.C.2. Telephone: Gerrard 4646. Telegrams: "Baillière-Rand, London."

Letters for the JOURNAL, literary contributions, reports, notices, books for review, exchanges, new instruments or materials, and all matter for publication (except advertisements) should be addressed to the Editor.

Manuscript—preferably typewritten—should be on one side only of paper, marked with full name of author.

Illustrations for reproduction should be in good black or dark brown ink on white paper or card.

Advertisements and all business matters relating to the JOURNAL should be addressed to the publishers, Messrs. Baillière, Tindall and Cox.

Annual Subscription for the British Empire, 18s., post free; for the United States, $4.50; or combined subscription with the "Veterinary News" (weekly), 30s., post free.